



## **Addendum No. 1 Feasibility Report**

Southwestern Horizontal Expansion  
Veolia ES Emerald Park Landfill, LLC  
City of Muskego, Waukesha County, Wisconsin

**November 2009**





November 25, 2009

Mr. Joseph Lourigan  
Southeast Region, Sturtevant Service Center  
Wisconsin Department of Natural Resources  
9531 Rayne Road, Suite 4  
Sturtevant, WI 53177

**Subject: Addendum No. 1 to Feasibility Report for the Southwestern Horizontal Expansion  
Veolia ES Emerald Park Landfill, LLC  
WDNR License #3290**

Dear Mr. Lourigan:

On the behalf of Veolia ES Emerald Park Landfill, LLC (VEPL), RMT, Inc. (RMT) is submitting for review to the Wisconsin Department of Natural Resources (WDNR), five paper copies of Addendum No. 1 to the Feasibility Report and the same information on a CD, for the proposed Southwestern Horizontal Expansion at the Emerald Park Landfill. In addition to your two paper copies, we have sent 2 paper copies to Ann Bekta at the WDNR's Janesville Service Center, and 1 copy to Brad Wolbert at the WDNR's Madison Office.

This addendum contains responses to items identified in the WDNR's "Letter of Incompleteness for the Veolia Emerald Park Landfill Proposed Southwest Expansion (License No. 3290)," dated April 23, 2009, and with the WDNR's request for additional information via e-mail after April 23.

Veolia requests that the WDNR review this addendum for completeness and approve the feasibility siting of the proposed solid waste facility at this location.

If you have any questions, or require additional information during your review of this addendum, please feel free to call me, at (608) 662-5157.

Sincerely,

RMT, Inc.

Dennis A. Marshall  
Project Manager

cc: See Distribution List

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## **Addendum No. 1**

# **Feasibility Report**

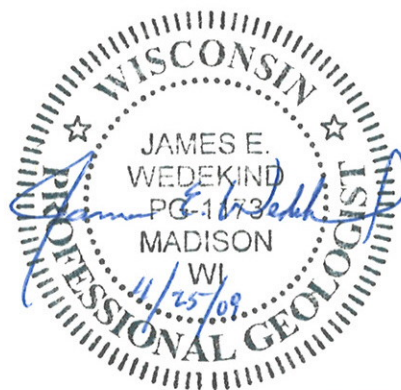
*Southwestern Horizontal Expansion  
Veolia ES Emerald Park Landfill, LLC  
City of Muskego, Waukesha County, Wisconsin*

**November 2009**

*Prepared For  
Veolia Environmental Services*



Douglas Genthe, P.E.  
Business Manager



James Wedekind, P.G.  
Senior Hydrogeologist

Dennis Marshall  
Project Manager



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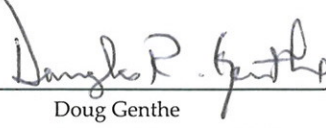
## List of Attachments


Attachment 1	Correspondence
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Attachment 16	Technical Memorandum – Evaluation of Leachate Travel Time from the Proposed Expansion to Nearest Private Wells

# Certification

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I, , hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of Chapter A-E 4, Wisconsin Administrative Code; that this document has been prepared in accordance with the Rules of Professional Conduct in Chapter A-E 8, Wisconsin Administrative Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in Chapters NR 500 to NR 538, Wis. Adm. Code.

I, , hereby certify that I am a registered professional geologist in the State of Wisconsin, registered in accordance with the requirements of Chapter A-E 10, Wisconsin Administrative Code; that this document has been prepared in accordance with the Rules of Professional Conduct in Chapter A-E 8, Wisconsin Administrative Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in Chapters NR 500 to NR 538, Wis. Adm. Code.



# Section 1

## Background

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On behalf Veolia ES Emerald Park Landfill, LLC (Veolia), RMT, Inc. (RMT), submitted a Feasibility Report (FR) to the Wisconsin Department of Natural Resources (WDNR) dated January 2009, for a proposed Southwestern Horizontal Expansion to the existing Emerald Park Landfill, License #268244130. Following their initial review of the FR, the WDNR sent a letter of incompleteness for the FR to Veolia, dated April 23, 2009 (Attachment 1).

To assist in addressing the incompleteness items identified in the WDNR letter, Veolia met with DNR staff on May 14, 2009, at the Veolia Emerald Park Landfill (VEPL) site. During the site meeting, Veolia confirmed with the department the basic understanding of each incompleteness item, the comments given, and the need for additional information identified in their April 23, 2009 letter regarding incompleteness. This addendum provides responses to the list of items in the incompleteness letter and to follow-up correspondence with the department so that the WDNR can continue with their review and make a determination on the FR for the proposed horizontal expansion.

## Section 2

# Responses to the WDNR's April 23, 2009, Letter Requests

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This section contains the responses to the items and comments included in the WDNR's Letter of Incompleteness dated April 23, 2009 (Attachment 1). The letter identified three parts: Part A, containing a list and explanation of the items needed to complete the FR in accordance with NR 512, Wis. Adm. Code, and Chapter 289, of the statutes; Part B containing a list of additional information, not specifically covered by the code or statute, but is necessary for the department to make a determination on the proposed expansion; and Part C containing general comments which Veolia may want to address in their response back to the department on the incompleteness letter. Each incompleteness item and comment contained in the WDNR's letter is presented in bold italic below followed by Veolia's response in regular text.

### 2.1 Part A. Information Required to Complete the Feasibility Report

1. *The Standard Notice from the Waste Facility Siting Board [NR 512.06 (d)];*

Response:

A copy of the Waste Facility Siting Board "Standard Notice Form" that Veolia sent to each of the affected municipalities is provided in Attachment 3.

2. *The chemical characteristics of any high volume industrial waste anticipated to individually constitute more than 5% of the total proposed design capacity (we believe shredder fluff is one such industrial waste) [NR 512.12 (1)]*

Response:

Although not on a recurring basis, auto shredder fluff is the only industrial waste stream that has occasionally constituted greater than 5% of the annual volume at the facility. We have included in this response the most recent analytical data we have received for this material (See Attachment 4).

3. *The miles of road and fencing that will be needed to construct, operate, and maintain the site [NR 512.16 (2) (c)]*

Response:

The existing office, scale, and operations building, will be utilized for the proposed Expansion. Starting from the existing entrance access to the active working face will be

on all-weather access roads. Where practical, existing site access roads on VEPL's property will be utilized to access the development areas. New access roads will be added around the facility and to the sedimentation basins as needed during landfill development to facilitate the landfill operations. Approximately 7,000 linear feet of new road will be needed around the perimeter of the Expansion.

Where practical, existing fencing will supplement other naturally occurring or constructed barriers along the perimeter of the property to restrict access to the site. Natural and constructed barriers would consist of such items as boulders, soil stockpiles, trees, ponds, and wetlands. An estimated 6,800 linear feet of fencing will be installed to restrict access to the Expansion site. See Figure 1 in Attachment 5 for road and fence locations.

4. *Social and Economic Impacts [NR 512.16 (4) (d)]*

- a. *A discussion on how the landfill may affect adjacent property values and what if any assistance the landfill owner may provide or has already provided to those property owners if they cannot sell their properties at fair market value (please pay particular attention to the residential properties on Union Church Drive);*

Response:

In accordance with provisions in the existing Community Host Agreement the Affected Municipalities have elected to implement the existing Community Host Agreement for the proposed expansion. A Property Value Protection Plan (PVPP) is an integral part of this existing Community Host Agreement. The PVPP provides property value protection for a majority of the non-commercial properties within ½ mile of the facility. Unfortunately the implementation of the existing agreement freezes the list for the proposed expansion so properties subdivided and developed within the area are not included in the PVPP for the proposed expansion. Veolia has negotiated deed restrictions with a majority of the property owners within this area that are not covered by the plan. The purpose of these deed restrictions were to compensate these property owners for any negative impacts associated with the proposed expansion.

- b. *A discussion of how the landfill may contribute to or how the landfill may negatively impact the revenues of the local municipalities, including the city and county (please also include any property tax revenue to local municipalities lost or gained on the land due to the expansion; for example, if the land were continued to be farmed how would property tax on the land as a farm compare to property tax generated from the land as a landfill?)*

Response:

The economic impact to the local municipalities is shown on Table 2 of the Revised Practicable Alternatives Analysis Report in Attachment 2. The landfill has a considerable economic contribution in revenue benefits to the local municipalities resulting from VEPL's payroll and purchase of services. In addition, there would be direct economic benefits to the local municipalities resulting from substantial host fees and in-kind services. If the landfill expansion did not take place, these economic benefits would be lost to a different city and county. As shown in Table 1 of Attachment 6 of this report, in 2008 Veolia paid approximately \$48,155 in taxes to local municipalities for the 601 acres VEPL owns, an average of approximately \$80 per acre. For the approximately 100 acres that would be needed for the proposed expansion, roads, sedimentation basins, and other features to operate the facility, the average property taxes would be \$100 to \$125 per acre, as compared to \$1.50 to \$5 per acre if the property were used for farming (based on the town of Norway assessor's office, see Attachment 6). Over the estimated 15 year site life, Veolia would pay in the range of \$150,000 to \$187,500 in taxes, as compared to a range of \$2,250 to \$7,500 in taxes if the 100 acres of land were used for farming. For the full 601 acre property, Veolia would pay approximately \$733,000 in taxes over the estimated 15 year site life. This does not take into account the substantial host agreement fees that the local governments collect on a per ton basis from the landfill operation.

- c. *A discussion of how the proposed landfill expansion meets consistency with the local municipalities (city and county) zoning and land-use plans.*

Response:

In Section III (A)(1) pg. III-5 of Waukesha Counties Solid Waste Management Plan for 1994 through 2014, the existing Emerald Park Landfill is identified as an integral part of the county's solid waste management plan (see Attachment 7). By adding the proposed expansion and allowing the continued operation of the Emerald Park Landfill would be consistent with Waukesha County's existing solid waste management plan.

The Waukesha County Solid Waste Management Plan states that "Waukesha County understands the need for a properly operated state-of-the-art landfill as an

*integral part of a comprehensive, environmentally sound, solid waste management system. Waukesha County supports the continued private sector involvement in the design and operation of state-of-the-art sanitary landfills within the greater Milwaukee area.” “It is the objective of Waukesha County to assure that there is adequate capacity in the state-of-the-art landfills for County wastes for the full 20-year solid waste planning period.”*

VEPL currently has an agreement with the City of Muskego for the existing Southeast Expansion that will continue with the proposed expansion. The City of Muskego’s existing Comprehensive Plan includes the VEPL’s property zoned as industrial, extractive, and for landfill use.

5. *A description of the public advisory and public opinion process taken such as any local community meetings, public notices, newspaper articles, mailings or newsletters, etc. [advisory and public opinion process, s. 289.24(1)(d), Wis. Stats.]*

Response:

Veolia has not conducted any public informational meetings on the proposed expansion. Public input relative to the proposed expansion will be limited to the required public comment period associated with the Feasibility Report for the proposed expansion.

6. *Stream gauge water elevation data [NR 512.09 (4) (f)] for:*

a. **SG-16**

Response:

Staff gauge SW-16 was originally installed in 1996 in Wetland W-4. Records indicate that only a few readings were made following installation of SG-16 before it was accidentally destroyed. Staff gauges SG-25 and SG-25A were later installed along the eastern boundary in Wetland W-4 and are currently being read.

b. **SG-19**

Response:

Staff gauge SG-19 was installed in 1996 in Wetland W-6 and was later accidentally destroyed after only a few readings were recorded. Since Wetland W-6 was scheduled to be removed as part of the landfill development, SG-19 was not replaced.

January and February 2007. Weather conditions were generally mild during this period with little to no frozen water conditions noted at the beginning of the field work. The delineated area of Wetland 12 was noted by RMT field staff as moist to wet, but no standing water was noted. A total of 4 staff gauges (SG-31 through SG-34) were installed during the field investigation however, because of the absence of water in Wetland 12, no staff gauge was warranted.

Water elevations for the stream gauges are provided in Table 6-5 of the FR (a copy is included in Attachment 8).

7. *A revised plan sheet 3 and 31 showing the locations of SG-15.*

Response:

Figure 2 in Attachment 9 shows a Plan Sheet 3 of 31 revised with the location of SG-15.

## 2.2 Part B. Additional Information Necessary to Make a Feasibility Determination

1. *The proposed wetland fill:*

- a. *Please provide more detailed information (e.g. hydrologic, biologic, etc.) regarding known and potential impacts to wetlands and navigable waterways that would remain after facility construction. The information should include impacts from road and berm construction, soil stock piles, ditches, truck traffic, fence installation and any other structure or activity that may affect remaining wetlands or waterways.*
- b. *Please provided more detailed information regarding how Veolia plans to protect any remaining wetlands including the size of any buffer areas and erosion control measures such as silt fencing, stone wrapped in geotextile fabric protective border, planting grass and visual inspections.*

Response for 1a and 1b:

For highly susceptible Wetland No. 4, and Wetlands No. 10 and 11, Veolia will provide a 50 foot minimum construction setback and will install fencing at the 50 foot setback. For Alternative 5 (see Figure 5 in Attachment 2), Veolia would provide a minimum 15-foot setback from toe-of-slope for the proposed landfill perimeter berm to Wetland No. 12, which is consistent with discussions with the WDNR representatives. For the proposed alternatives where partial filling of a wetland would occur (Alternatives 2, 4, and 5, in Attachment 2), sediment fencing will be placed in the wetlands along the edge of the construction limits to minimize sediment from going into the portions of wetlands not disturbed. Because landfill development will occur in phases for all alternatives, Veolia will protect adjacent undisturbed wetlands during each phase of construction by:



- Placing sedimentation fencing between undisturbed wetland areas and construction activities.
- Constructing temporary and long-term sedimentation basins with biofilter discharge outlets that will collect surface water runoff from construction areas.
- Placing riprap in channels with steep slopes and high surface water flow velocities to maintain stable slopes.
- Using erosion control matting to minimize sediment migration.
- Constructing drainage ditches that will collect and control flow of surface water.
- Placing seeding and mulch in and around excavation areas to minimize sediment migration from the construction area.

As phases of the final cover are installed; diversion berms, downslope flumes, and energy dissipaters, will be constructed to transfer collected surface water in a controlled manor off the final cover and into sedimentation basins. Sedimentation basins will be located outside and around the perimeter of the landfill. Veolia will provide a detailed phase by phase layout plan in the Plan of Operation. The Plan will identify construction limits for areas that will be disturbed, the location of soil stockpiles, and the location of temporary and long-term surface water controls (e.g., ditches, berms, and sedimentation/detention basins).

## 2. *Practicable Alternatives Analysis (PAA) for Chapter NR 103, Wis. Adm. Code:*

- a. *Please amend the PAA to include a summary of adjacent off site properties and a discussion of the potential for landfill development on those sites. Please include existing conditions at those sites and any locational setbacks that may need to be met. Please explain why each adjacent property would not be a practicable alternative to the currently proposed site.*

### Response:

A revised PAA including a summary of offsite properties with potential landfill development is included in Attachment 2.

- b. *Please provide a listing (address and acreage) of any other land currently owned by Veolia or any subsidiary of Veolia including land under any type of contract, located within the Emerald Park Landfill service area or any overlapping service area.*

### Response:

Veolia ES Emerald Park Landfill, LLC owns a number of properties in the near vicinity of the landfill. Many of these properties consist of small tracts (less than

10 acres) which were acquired through the Property Value Protection Plan that is a component of the Community Host Agreement. These tracts are too numerous to list. The only noncontiguous parcel Veolia owns greater than 10 acres in size is an approximately 110 acre parcel located on Hwy 45 approximately 3 miles south of the VEPL facility. This property known as the Oakes clay farm is used for the management of excess clay from VEPL liner excavation activities. To date almost 2 million cubic yards of clay has been placed on the property and remaining capacity for the property is close to 1.8 million cubic yards. The current use of the property would economically inhibit the development of the property for landfilling. As of June 2009 VEPL is in the process of acquiring the adjacent Future Parkland Development, Inc. Foundry Sand Landfill from the Briggs & Stratton Corporation. VEPL's intended use of the property is limited to clay management activities. The excess clay quantities associated with the preferred alternative No. 4 and Alternative No. 5 exceed the current clay volume capacity of the Oakes Clay Farm. This property provides the opportunity to manage any additional excavated clay volume that exceeds this capacity. Acquisition of this property is expected to be completed in early 2010.

*c. Please provide further discussion on alternative no. 2.*

- i. Aside from the NR 504 locational exemptions that would be needed for the limits of waste to be located within 1,200 feet from the water supply wells located on Union Church Drive, are there any other reasons why figure 3 in Appendix B depicts the limits of waste for Alternative 2 farther from Union Church Drive than the existing proposal?*

Response:

The purpose of this design alternative was to illustrate a landfill footprint that avoids all the drainage ditches, including the drainage ditch that is connected to Wetland No. 4 and runs north to south adjacent to Union Church Drive. To avoid the ditch connected to Wetland No. 4, the landfill would need to be set back approximately 300 feet. The small design capacity of this alternative renders this alternative economically nonviable.

- ii. *Can the limits of waste on the east and west side of Alternative 2 be adjusted to provide greater buffer to wetlands 12 and 4? If not, what would be the primary and secondary impacts (as discussed in 1.a. above) to wetlands 12 and 4 in Alternative 2. How will Veolia protect the wetlands as described in 1.b. above?*

Response:

Veolia does not believe that Alternative No. 2 as shown is a viable option as a contiguous expansion to the existing VEPL. This alternative illustrates the low volume of airspace achieved by avoiding drainage ditches and most of the wetlands areas, and therefore, setting back the landfill limits even further to create a greater buffer makes this alternative even less viable. If this alternative were to be constructed, the protection measures described in 1.b above would also apply here and be implemented.

As an Alternative to No. 2, Veolia has proposed a new Alternative No. 4 as shown on Figure 5 in the revised PAA (see Attachment 2). Similar to Alternative No. 2, this new alternative would avoid Wetlands 4 and 12, but have the landfill footprint include the area over portions of Wetland No. 9 and shown in the preferred alternative (see Figure 6 in Attachment 2). An explanation of the technical, logistical, environmental, economic, assessments, along with volumes associated with the new Alternative No. 4 is provided in Section 5 of the revised PAA and summarized in Section 3 of this Addendum.

3. *Surface water and groundwater hydrology:*

- a. *Please provide a drawing detail of the biofilter design.*

Response:

A detail of the proposed biofilter design is shown on Detail Sheet 1 in Attachment 10.

- b. *Please provide a discussion of the existing surface water flow patterns to wetlands, streams and ponds and how those flow patterns may change in both volume and characteristics under the existing proposal. Please also consider how water from the gradient control system may affect volumes to the wetlands.*

Response:

Currently surface water flow to wetlands, in and adjacent, to the area of the proposed expansion consist precipitation falling directly into the wetlands and in higher surrounding areas, and accumulating in the surrounding wetlands. The

overall drainage is very poor in the area, and infiltration is very slow, so precipitation simply ponds in much of the site. As indicated in the preliminary surface water calculation provided in Appendix T of the January 2009 FR, the volume of surface water flow to adjacent wetlands will increase over the life of the landfill development because the final cover on the landfill will be designed to minimize infiltration into the landfill. Standard surface water control systems will be designed to promote surface water flow to the outside perimeter of the landfill. Because the final size and location of the expansion footprint is determined as part of the FR approval process, Veolia's position is that it is premature to perform final surface water design calculations as part of the FR. The extensive effort associated with the design of surface water management systems with each of the PAA alternatives is not practical. Rather, Veolia will provide these calculations as part of the Plan of Operation (POO) submittal to the WDNR based on the footprint approved.

The surface water control design that will be presented with the POO will include watershed management areas within the landfill footprint and areas adjacent to the landfill footprint that will control discharge consistent with pre-landfill development. Though the runoff volume will be increased as a result of landfill development, the distribution of surface water to adjacent wetlands will be similar to pre-landfill development. Also, throughout phase development over the life of the proposed expansion, temporary surface water controls will be designed so that wetlands are not deprived of the volume of surface water contributed to the wetland prior to the phased development. Calculations will be provided in the POO demonstrating that this relationship of surface water distribution will occur.

The gradient control system is a temporary system that is turned on after the liner system has been constructed in each phase of development and runs only until the waste level in the landfill is at an elevation that will provide a buttress to the landfill sidewalls at which time the system will be turned off. The volume of water pumped from the gradient control system can be used to balance surface water flow to the wetlands.

- c. *Please provide monitoring information required in condition #6 of the July 29, 1999 feasibility determination to show if the goal of condition #6 is being achieved.*

Response:

Staff gauge data collected from January 2000 to September 15, 2009 for SG-1 through SG-5, for SG-10 through SG-14, for SG-21, SG-21A, SG24, SG 24A, SG-25, SG-25A, and CW-1 are provided in Attachment 11.

- d. *Please provide a response to comments made by WDNR Storm Water Engineer Bryan Hartsook contained in Attachment #1.*

Response:

As indicated in Mr. Hartsook's comments, the proposed expansion is not required to meet NR 151 post construction performance standards. Table 2 in Attachment 12 compares the NR 504.09 storm water management requirements to those referenced in the letter (NR 151, SEWRPC and Technical Standards 10001, 1053 and 1064). Veolia believes, as with past permit submittals for landfill developments, it is appropriate to follow the NR 500 design criteria. A landfill has multiple construction events and operates over a long period of time. Veolia believes the design criteria in NR 504.09 is appropriate for this proposed expansion. The Wisconsin Administrative Code currently has no provisions that mandated the implementation of NR 151 in lieu of NR 504. Until adoption of such provisions, or modifications of existing standards, VEPL will comply with NR 504 for the design, construction, and operation of the surface water management system associated with the proposed expansion.

- e. *Please provide the linear feet of proposed ditch filling.*

Response:

As part of the expansion development Veolia proposes to fill approximately 220-feet of agricultural Ditch D2 located north of the proposed expansion in Wetland 9. See surveyed ditch location on Plan Sheet 3 of 32 and the location of the northern perimeter berm for the proposed landfill on Plan Sheet 29 of 32 in the FR plan set.

4. *Physical impacts [NR 512.16(4) (a)]: Please elaborate on the discussion of the potential and anticipated visual impacts that the landfill and landfill features may have on neighbors around the site, in particular to the residents who live on Union Church Drive (please consider screening berms, trees, windblown litter, dust, ability to see waste in the landfill, and landfill side slopes) Does Figure 9-1 depict several screening berms to be constructed over time at different heights as the elevation of waste increases?*

Response:

Phased development of the proposed expansion will consist of the initial phase (Phase 7) to be constructed west of existing Phase 6, followed by Phases 8 and 9 also proceeding to the west. Waste placement within the phases will be going from east to west direction similar to existing Phases 5 and 6 waste placement. The operations for a majority of the expansion site life will be similar in visual impacts to neighbors as the existing operations (see Plan Sheet 29 of 32 in the FR). Phase 9 waste placement will proceed

from the north to south. The southern end of Phase 9 is approximately 600 feet from Union Church Drive.

The final phase (Phase 10) is located nearest Union Church Road. Phase 10 is the smallest phase and has the limits of waste boundary located approximately 190 feet from Union Church Drive. The southern perimeter berm is designed to be 11 feet higher in elevation than the eastern and western perimeter berms to provide more screening from landfill operations along Union Church Drive. In addition to the screening provided by the landfill perimeter berm, soil screening berms will be constructed in the waste as placement of the waste increases in elevation. The berms will be placed in the outermost limits of waste along the southern sides of Phase 7, 8, 9 and 10 and along a western portion of Phase 10. Soil screening berms are presently being used for the existing landfill operations at the VEPL. Figure 9-1 in the FR is a scaled drawing depicting the typical installation of soil screening berms and shows the line-of-site lines from Union Church Drive at the southern perimeter berm of Phase 10. Soil screening berm construction will be ongoing as needed and will be built in the waste mass near the final waste grade slope. The berms will vary from 8 to 12 feet in height and will have 4 horizontal to 1 vertical outer slopes.

## 2.3 Part C. General Comments

1. *Based on the PAA, it appears there may be at least one practicable – alternative #2, which provides additional waste disposal capacity and minimizes wetland and navigable stream impacts. We understand Veolia has spent a considerable amount of effort developing a potential wetland mitigation bank; however, ch. NR 103, Wis. Adm. Code does not allow the filling of wetlands if there exists a practicable alternative to avoid or minimize, or if the department determines that the activity will have a significant adverse impact on wetland functional values. Only after these criteria are satisfied, can the department consider wetland mitigation to compensate for the filling of wetlands.*

### Response:

From a business standpoint Veolia does not believe that Alternative 2 is a viable option for a landfill expansion. Further explanation of the constraints associated with Alternative 2 is provided in a revised PAA in Attachment 2. As another option Veolia is proposing a new alternative (Alternative No. 4 shown as Figure 5 in the revised PAA in Attachment 2) that takes into account the WDNR's comments in the incompleteness letter and those given during a meeting held with the department at the VEPL site on May 14, 2009. New Alternative No. 4 is similar to the preferred expansion, but takes into account the WDNR's desire to protect Wetland 12. The toe of slope for the landfill exterior perimeter berm of this alternative is within approximately 15 feet of the wetland No. 12 boundary in two locations. The WDNR has indicated this would be acceptable if



construction into wetland No. 12 was avoided. The revised horizontal expansion footprint for Alternative No. 4 is reduced from the preferred (Alternative No. 5 in the PAA of Attachment 2) by 5.5 acres from 71.2 acres to 65.7 acres. The vertical overlay area onto the existing Northeast Expansion will remain the same as that presented in the January 2009 FR (e.g., 21.2 acres). The 5.5-acre reduction in the landfill footprint will reduce the requested design capacity presented in the 2009 FR from 16,316,300 cubic yards of waste and daily/intermediate cover to 14,726,800 cubic yards (approximately 10 percent). Alternative No. 4 will also reduce the area of wetlands lost from 14.28 acres to 11.03 acres compared to the preferred Alternative No. 5. Additional information of Alternative No. 4 is provided in the revised PAA (Attachment 2).

2. *The PAA places significant weight on the cost to construct and operate each alternative along with the economic impact each alternative may have on the company and the surrounding communities. While economics is a key factor for the company to consider, the department considers an alternative to be practicable if it is "available and capable of being implemented after taking into consideration quantifiable and verifiable information on the cost, available technology and logistics in light of the overall project purpose." The weight the department places on economic factors may vary substantially from the weight the company places on the relative economics of different alternatives. The department may consider alternative to be practicable even if it is not the optimum alternative from an economic or profitability perspective.*

Response:

See revised PAA in Attachment 2 for a response that address this item.

3. *Department staff will visit the site to conduct its own wetland functional values assessment in the near future*

Response:

The WDNR visited the VEPL on May 14, 2009 and met with Veolia, NRC, and RMT personnel.

4. *Application to the Army Corps of Engineers (ACE): The department has requested Veolia delay submitting its application to the ACE for the proposed wetland fill, until after we can review an amended PAA so that the application to ACE contains a proposal which is consistent with the department's determination.*

Response:

Veolia will submit application to the ACE for filling of wetland upon notification from the WDNR as recommended.

5. *Relationship between the requested s. NR 504.04 (3) (f), Wis. Adm. Code exemptions for water supply wells located within 1,200 feet of the proposed limits of waste and the requirements of s. NR 812.08 (4) (g) 1, Wis Adm. Code:*

*The well owner for each well or Veolia will need to submit a request for a variance from s. NR 812.08 (4) (g) 1, Wis Adm. Code, under the provisions of s. NR 812.43, Wis. Adm. Code. The department's Waste and Materials Management Program will review the requested NR 504 exemptions as part of its feasibility review and the Drinking Water and Groundwater Program will review the NR 812 variance requests. Our individual programs work together on the review of these requests, but we ask that Veolia hold off on submitting the NR 812 variance requests until such time that both reviews can occur with the same or nearly the same timeline for a decision. We believe this will help provide a more consistent review and decision on both code requests. We will notify Veolia when we believe the best time is to submit the NR 812 variance requests.*

*Please note that if the Department determines that the NR 504 exemptions cannot be granted, this may affect the NR 103 practicable alternatives analysis.*

Response:

Veolia will submit the request for NR 812 variances when notified by the WDNR.

6. *Soil Borrow:*

*The feasibility report does not contain modified proctor and moisture density tests and hydraulic conductivity tests on samples taken from same locations as required by NR 504.075(5), see page 13-2 of feasibility report. Because there is some detailed, specific knowledge of the soil at this site, these tests and information can be provided in the Plan of Operation Report. Please note, this does not waive the required code specifications on the soil that need to be met for clay liner and cap construction.*

Response:

Test results for soil samples taken in the area of the proposed expansion indicating that the soil meets the required code specifications for the clay liner and final cover will be provided in the Plan of Operation report.

7. *Veolia is requesting approval for a 10% overfill during landfill operation to account for settlement. In the past, the department has allowed only 5%.*

Response:

Veolia will provide with the Plan of Operation submittal a financial assurance mechanism for removal of waste remaining above the final approved waste grades should premature closure of the expansion occur.

8. *The traffic study contained in Appendix K is 12 years old and may no longer represent existing conditions. However, the department has notified the Wisconsin Department of Transportation (WDOT) of the landfill feasibility report and will provide notification to the WDOT when the public comment period begins.*

No response required.